

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF APS (ACCESSIBLE PEDESTRIAN SIGNALS)/CPS (COUNTDOWN PEDESTRIAN SIGNALS) AND INSTALLATION OF ADA COMPLIANT CURB RAMPS AT THE INTERSECTION OF MD 170 (AVIATION BOULEVARD) AND ELKRIDGE LANDING ROAD/AIR CARGO DRIVE IN ANNE ARUNDEL COUNTY, MARYLAND. MD 170 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION OPERATION WILL REMAIN THE SAME.

TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS

MD 170 (AVIATION BOULEVARD) AND ELKRIDGE LANDING ROAD - SOUTH LEG

STREETS AT 90 DEGREES

WAIT: "AIT TO CROSS AVIATION AT ELKRIDGE LANDING. WAIT." **

WALK: RAPID TICK

MD 170 (AVIATION BOULEVARD) AND AIR CARGO DRIVE - SOUTH LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS AVIATION AT AIR CARGO. WAIT." **

WALK: RAPID TICK

AIR CARGO DRIVE AND MD 170 (AVIATION BOULEVARD) - EAST LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS AIR CARGO AT AVIATION. WAIT." **

WALK: RAPID TICK

* MESSAGE USED IF DISTANCE FROM NEAREST PUSHBUTTON FOR PERPENDICULAR CROSSING IS < 10'
** MESSAGE USED IF CROSSWALK DIVERGES FROM OR CONVERGES WITH PARALLEL TRAFFIC

NOTE: MESSAGES FOR INTERSECTION CONFIGURATIONS, VARYING FROM THE ABOVE ARE TO BE APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CABINET AND CONTROLLER WILL BE USED. THE CONTROLLER WILL BE RETROFITTED TO OPERATE APS EQUIPMENT.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9571	4 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
	- 2 EACH	R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS AVIATOR BLVD"
	- 2 EACH	R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS AIR CARGO DR"

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA
NONE

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT.
ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

STANDARD NO. MD-104.04-03 (LEFT LANE CLOSURE) STANDARD NO. MD-104.02-13 (INTERSECTION FLAGGING OPERATION)
STANDARD NO. MD-104.04-05 (RIGHT LANE CLOSURE)
STANDARD NO. MD-104.04-13 (LEFT TURN BAY CLOSURE)

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
2001	1 C.Y.	CLASS 2 EXCAVATION
2002	4 C.Y.	TEST PIT EXCAVATION
5002	90 L.F.	5 IN. HEAT APPLIED WHITE OR YELLOW PERMANENT PAVEMENT MARKINGS
5003	530 L.F.	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS
5004	480 L.F.	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
5005	40 L.F.	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
6001	130 L.F.	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	510 S.F.	5 INCH CONCRETE SIDEWALK
6003	55 S.F.	DETECTABLE WARNING SURFACE FOR CURB RAMPS
8002	1 EACH	2-WIRE CENTRAL CONTROL UNIT
8008	4 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION & SIGNS
8009	4 EACH	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8018	4 EACH	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
8043	80 L.F.	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8045	4 S.F.	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8047	125 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8058	830 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8060	875 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. KIMBERLY TRAN
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 841-1019

MR. MIKE HUBER
DISTRICT UTILITY ENGINEER
PHONE: (410) 841-1039

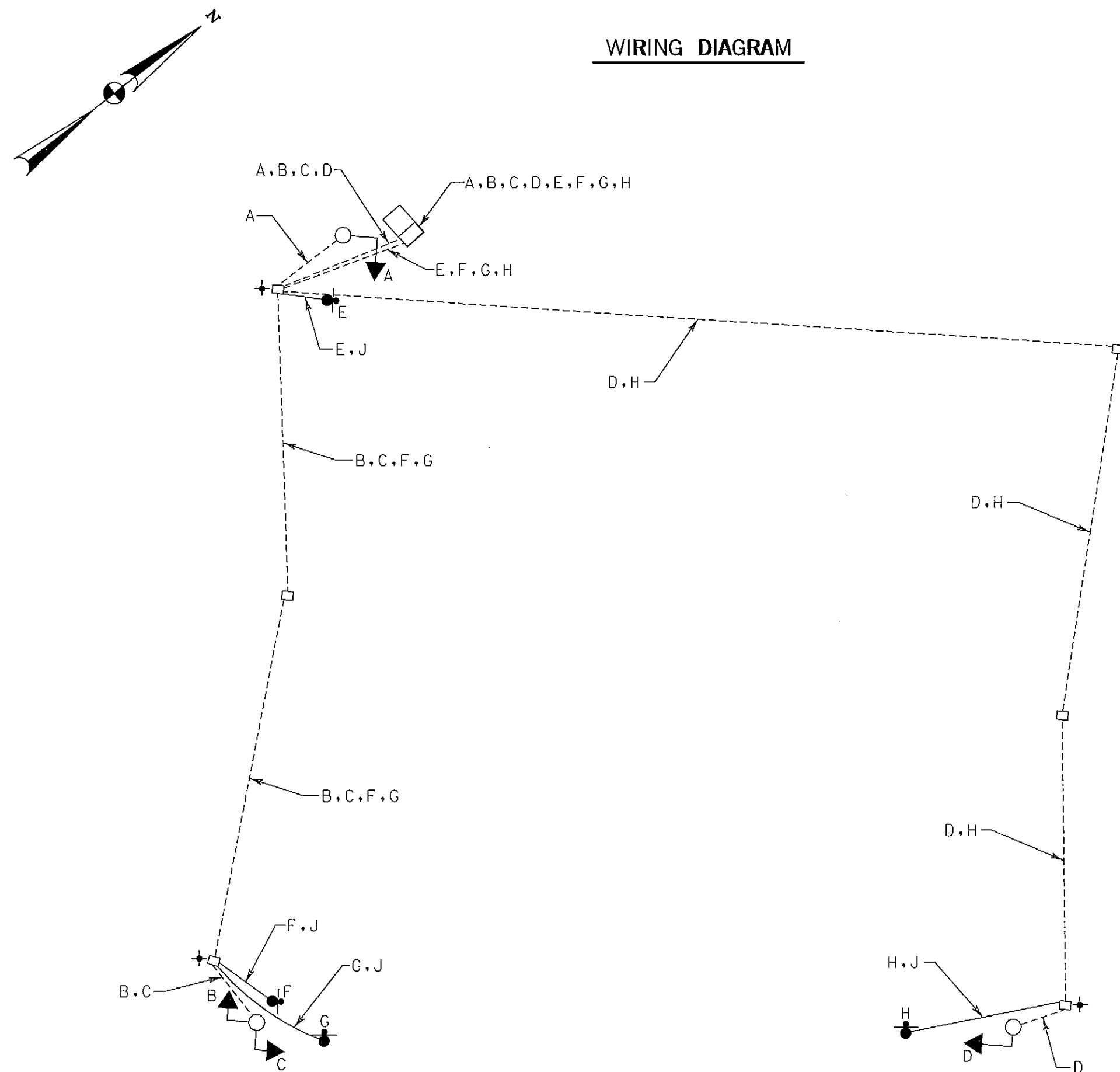
MR. JOE GECKLE
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 841-1000

MR. AVIJIT MAJI
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	←W← ←G←	←R← ←Y← ←B←	←R← ←Y← ←B←	←W← ←G←	←R← ←Y← ←B←	←R← ←Y← ←B←	←W← ←G←	←R← ←Y← ←B←	←R← ←Y← ←B←	←R← ←Y← ←B←	←R← ←Y← ←B←	←R← ←Y← ←B←	←W← ←G←	←R← ←Y← ←B←	←R← ←Y← ←B←	←W← ←G←
PHASE 1 + 5	←G←	←R←	R	←G←	←R←	R	R	R	R	R	R	R	DW	DW	DW	DW
1 + 5 CHANGE	←G←	←R←	G	←G←	←R←	G	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 1 + 6	←G←	←R←	G	←G←	←R←	G	R	R	R	R	R	R	DW	DW	DW	DW
1 + 6 CHANGE	←G←	←R←	G	←G←	←R←	G	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 + 5	R	R	R	←G←	←R←	G	R	R	R	R	R	R	DW	DW	DW	DW
2 + 5 CHANGE	R	R	R	←G←	←R←	G	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 + 6	G	G	G	←G←	←R←	G	R	R	R	R	R	R	WK	WK	DW	DW
PED CLEARANCE	G	G	G	←G←	←R←	G	R	R	R	R	R	R	FLDW	FLDW	DW	DW
2 + 6 CHANGE	Y	Y	Y	←G←	←R←	G	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 3	R	R	R	←G←	←R←	G	R	R	R	R	R	R	G	DW	DW	DW
3 CHANGE	R	R	R	←G←	←R←	G	R	R	R	R	R	R	Y	DW	DW	DW
PHASE 4	R	R	R	←G←	←R←	G	R	R	R	R	R	R	DW	DW	DW	DW
4 CHANGE	R	R	R	←G←	←R←	G	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 4 ALT.	R	R	R	←G←	←R←	G	R	R	R	R	R	R	DW	DW	WK	WK
PED CLEARANCE	R	R	R	←G←	←R←	G	R	R	R	R	R	R	DW	DW	FLDW	FLDW
4 ALT. CHANGE	R	R	R	←G←	←R←	G	R	R	R	R	R	R	DW	DW	DW	DW
EMERGENCY PRE-EMPTION 1	←G←	←R←	G	←G←	←R←	G	R	R	R	R	R	R	DW	DW	DW	DW
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY	DARK	DARK	DARK	DARK

WIRING DIAGRAM



WIRING KEY

A
B
C
D } 5-CONDUCTOR ELECTRICAL
CABLE (NO. 14 A.W.G.)

E
F
G
H } 2-CONDUCTOR ELECTRICAL
CABLE (NO. 14 A.W.G.)

J } STRANDED BARE COPPER
GROUND WIRE (NO. 6 A.W.G.)

+ - 3/4 IN. X 10 FT. GROUND
ROD

TOD NO: XY139-03
SHA NO: AA189B53
MD 162, MD 170, MD 176 @ Various
Locations

SHA

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 170 (AVIATION BOULEVARD) AT
AIR CARGO DRIVE / ELKRIDGE LANDING ROAD
(LINTHICUM HEIGHTS, MD)

GENERAL INFORMATION SHEET

SCALE NONE DATE FEBRUARY, 2013 CONTRACT NO. XY1395185

DESIGNED BY J. RASMUSSEN COUNTY ANNE ARUNDEL

DRAWN BY J. RASMUSSEN LOGMILE 02017008.218

CHECKED BY N. LEARY TMS NO. 1653

F.A.P. NO. TOD NO.

TS NO. 1227F DRAWING **TSP-6** OF 33 SHEET NO. 6 OF 33

WR&A

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